UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,187	06/21/2001	Gregory Francis Pfister	AUS920010471US1	6473

7590 01/31/2005		EXAMINER
Duke W. Yee		GURSHMAN, GRIGORY

	ART UNIT	PAPER NUMBER
Duke W. Yee	2132	
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DATE MAILED: 01/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<table>
<tr>
<td rowspan="2">Office Action Summary</td>
<td colspan="2">Application No.</td>
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<td colspan="2">09/886,187</td>
<td colspan="2">PFISTER ET AL.</td>
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<td colspan="2">Examiner</td>
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<td colspan="2">Grigory Gurshman</td>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 June 2001*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on ᴵᵒ/ⁿ/ₒₗ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-7, 10-18, 21-29, 32, 33 are rejected under 35 U.S.C. 102(b) as being

anticipated by Hammersly (U.S. Patent No. 5.392.433).

3.   Referring the instant claims Hammersly discloses a method for intraprocess

locking in a computer system (see abstract and Fig.1). Hammersly teaches that when

one program executing within a process accesses a shared computer resource, it

requests that the operating system lock out all other programs executing asynchronous

within that process, as well as other processes executing within the computer system,

from that shared resource. Different types of locks, such as exclusive and shared locks,

are also supported (see abstract).

4.   Referring to the independent claims 1, 12 and 23, the limitation "determining if a

lock is uncontested using an atomic operation" is met by block 120 in Fig 5A-1, which

determines if the lock is exclusive. An exclusive lock is an uncontested lock since it

allows no other readers. The limitation "acquiring the lock if the lock is uncontested" is

met by Figs. 5A-1 - 5B. The process of acquiring the lock is shown as fallowing: from

block 120 – link E to J to block 115 granting the lock request.

5.   Referring to claims 2, 13 and 24, Fig. 1 of Hammersly shows that operation is a cross-system operation (see unit 11 having lock table and workstation 20).

6.   Referring to claims 4, 14 and 25, it is inherent to have a cross-system operations provided by an area network.

7.   Referring to claims 4, 15 and 26, Hammersly shows in Fig. 3C that locks are compared and swapped within the operating system.

8.   Referring to claims 5, 16 and 27, Hammersly teaches "using lock table having an entry for each available lock" – see lock table 80 in Fig.1 and block 130 in Fig. 5B.

9.   Referring to claims 6, 17 and 28, Hammersly shows that lock table is distributed to from Unit 11 to the workstation 20 (see Fig.1), which meets the limitations of the instant claims.

10.   Referring to claims 7, 18 and 29, Hammersly shows that the lock table resides with a single node in a network (80 in Fig. 1).

11.   Referring to claims 11, 22 and 33, it is inherent to use fairness mechanism for lock acquisition if the lock is contested (i.e. used by more than one resource).

Claim Rejections - 35 USC § 103

12.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13.   Claims 8, 9, 19, 20, 30 and 31 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hammersly (U.S. Patent No. 5.392.433) in view of IBM Technical Disclosure Bulletin, February 1995 (hereinafter IBM).

14.   Referring to the instant claims, Hammersly discloses a method for intraprocess locking in a computer system (see abstract and Fig.1). Hammersly teaches that when one program executing within a process accesses a shared computer resource, it requests that the operating system lock out all other programs executing asynchronous within that process, as well as other processes executing within the computer system, from that shared resource. Hammersly teaches determining if a lock is uncontested. Hammersly shows a lock message (see block 810 in Fig. 4) having the value corresponding to the lock address.

Hammersly, however, does not teach using a hash on a lock name for identifying which node holds the corresponding portion of the lock table.

15.   Referring to the instant claims, IBM teaches a data granularity locking scheme used to support record level locking in a client/server DBMS. Same as in other concurrency control mechanisms, the server in our scheme employs a global hash table to manage all locks. For each incoming lock request, the server will use a hash function to hash the requested lock name to the corresponding hash entry. By checking the information kept in that hash entry, the server determines whether that resource, i.e., record in this study, is locked by any other client. A lock will be granted to the requesting client if the server finds there is no contention on that record (see disclosure text).

Therefore, at the time the invention was made it would have been obvious to one of ordinary skill in the art to determine if a lock is uncontested as taught in Hammersly by using the hash of the lock name as taught in IBM. One of ordinary skill in the art would have been motivated to determine if a lock is uncontested by using the hash of the lock name as taught in IBM for granting the lock to the requesting client (see IBM disclosure

text).

16.   Referring to claims 11, 21 and 32, it s well known in the art to post lock

messages to Send Queue. One of ordinary skill in the art would have been motivated to

post lock messages to Send Queue for determining if the lock is contested.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Grigory Gurshman whose telephone number is

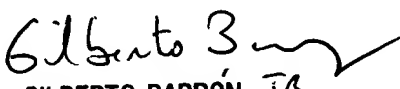(571)272-3803. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Gilberto Barron can be reached on (571)272-3799. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Grigory Gurshman
Examiner
Art Unit 2132

GG

GILBERTO BARRON JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100